

the user is reproducible. In an example embodiment one or more of the following mechanisms are included in the band for ensuring that the pressure is the same for all measurements: a pressure sensor configured to detect band's compression force against the skin, a strain-gauge transducer configured to detect curvature of the band, a shape memory alloy actuator configured to detect curvature of the band (the resistance of a shape memory alloy wire changes when the length of the wire changes and this can be used for curvature detection).

[0052] FIG. 9 shows a flow diagram illustrating a method according to an example embodiment of the invention. The method may be performed for example by the apparatus 100, 300, 500, 550, 570 or 600 of previous Figures. In phase 910 of the method, activity in an apparatus is detected. For example, it is detected that an incoming call or message is received, or an alert is triggered (such as low battery charging level, reminder in a calendar, availability of new information etc.). In phase 920, an actuator is controlled to change shape of an elongated apparatus structure, such as a band or a strap, in order to change tightness of the elongated apparatus structure around a body part of a user as an indication of the activity. In an example the elongated apparatus structure is a wrist band and the wrist band is tightened or loosened around a wrist of the user as an indication of the activity. In an example the band is periodically tightened and loosened. In this way a new type of user interaction is provided. In an example, the user can be informed of an action without the user needing to look at the device since the user senses the band being tightened around the wrist or other body part.

[0053] In this example the apparatus in which the activity is detected can be part of the band that is fitted around the body part of the user. Alternatively, the apparatus in which the activity is detected can be a separate apparatus that is configured to communicate with a processing unit in the band over a suitable wireless communication connection.

[0054] Without in any way limiting the scope, interpretation, or application of the claims appearing below, a technical effect of one or more of the example embodiments disclosed herein is to provide that one size band fits all. There may be settings in a memory comprising parameters that define how the band shall fit to a user. There may be for example a setting that defines the pressure with which the band is in contact with the skin of the user and/or a setting that defines certain curvature for the band. When the band is fitted to a new user these settings and appropriate sensors and other mechanisms are used for providing fitting that corresponds to the settings. In an example embodiment these setting are user-adjustable. In an example embodiment one or more of the following mechanisms are included in the band for ensuring that the band fits any user (for controlling bending of the band so that the parameters defined in the settings are met): a pressure sensor configured to detect band's compression force against the skin of the user, a strain-gauge transducer configured to detect curvature of the band, a shape memory alloy actuator configured to detect curvature of the band (the resistance of a shape memory alloy wire changes when the length of the wire changes and this can be used for curvature detection).

[0055] Another technical effect of one or more of the example embodiments disclosed herein is improved user experience due to the band being tightened only when sensors collect data. Another technical effect of one or more of the example embodiments disclosed herein is to provide reliable measuring due to the band being tightened with the same

force every time. Another technical effect of one or more of the example embodiments disclosed herein is to provide possibility for new type of user interaction. For example, the band can be configured to tighten for an indication of an incoming call or text message or as an indication of some other action taking place. As another example of user interaction, the band can be configured to tighten and loosen in cycle to provide vibrating feedback.

[0056] If desired, the different functions discussed herein may be performed in a different order and/or concurrently with each other. Furthermore, if desired, one or more of the above-described functions may be optional or may be combined.

[0057] Although various aspects of the invention are set out in the independent claims, other aspects of the invention comprise other combinations of features from the described embodiments and/or the dependent claims with the features of the independent claims, and not solely the combinations explicitly set out in the claims.

[0058] It is also noted herein that while the above describes example embodiments of the invention, these descriptions should not be viewed in a limiting sense. Rather, there are several variations and modifications which may be made without departing from the scope of the present invention as defined in the appended claims.

1. An apparatus comprising:
 - an elongated apparatus structure configured to fit around a body part of a user;
 - an actuator configured to change shape of the elongated apparatus structure;
 - wherein the actuator is configured to change tightness of the elongated apparatus structure around the body part of the user based on an action the apparatus is performing.
2. An apparatus according to claim 1, the actuator is configured to tighten the elongated apparatus structure around the body part of the user based on the action the apparatus is performing.
3. An apparatus according to claim 1, the actuator is configured to loosen the elongated apparatus structure around the body part of the user based on the action the apparatus is performing.
4. An apparatus according to claim 1, further comprising at least one sensor, wherein the actuator is configured to tighten the elongated apparatus structure around the body part of the user in response to the sensor initiating collection of data.
5. An apparatus according to claim 1, further comprising at least one sensor, wherein the actuator is configured to loosen the elongated apparatus structure around the body part of the user in response to the sensor ending collection of data.
6. An apparatus according to claim 4, wherein the sensor is configured to measure heart rate or skin moisture or blood pressure.
7. An apparatus according to claim 1, wherein the actuator is configured to change tightness of the elongated apparatus structure around the body part of the user as an indication of activity in the apparatus.
8. An apparatus according to claim 1, wherein the actuator comprises shape memory material.
9. An apparatus according to claim 1, wherein the actuator comprises a motor.
10. An apparatus according to claim 1, further comprising a user interface unit.